

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

## FACT SHEET

(pursuant to NAC 445A.236)

**Applicant:** Webb Ranch  
Terry and Laura Webb  
P.O. Box 2279  
Fallon, Nevada 89407

**Permit:** NEV2008501

**Location:** Webb Ranch  
500 Norcutt Lane, Parcel 006-111-10 and  
1460 Norcutt Lane, Parcel 006-111-13  
Fallon, Churchill County, Nevada 89406  
Latitude: 39.34° N  
Longitude: 118.75° W  
Township 17N, Range 29E, Section 18 MDB&M

**Public Water Supply:** The land application site is not located within a wellhead capture zone or within 6,000 feet, Drinking Water Protection Area 4, of a public water supply well.

**General:** The Applicant proposes to continue to land apply domestic septage, portable toilet fluid, and grease interceptor material to approximately 37 acres of nutrient deficient agricultural land located at Webb Ranch, 1460 Norcutt Lane, Fallon, Churchill County, Nevada, assessors parcel number 006-111-13. The Applicant has been authorized to land apply septage, portable toilet fluid, and grease interceptor material pumped by A-1 Septic, Allied Sanitation Service, Budget Septic Service, Bonanza Septic Service, Easy Rooter Plumbing, Shamrock Site Services, and Summit Plumbing and Septic Service at this site since July 5, 2007 under temporary permit TNEV2007519. The draft permit proposes to increase the amount of land authorized for land application to approximately 220 acres. The new areas will include the remaining 151 acres of parcel 006-111-13 and approximately 32 acres of parcel 006-111-10 located at 500 Norcutt Lane.

The two parcels are zoned A-10, agricultural use area, with water rights. The fields have been laser leveled and will be irrigated between border/checks. The 37-acre TNEV2007519 field has been laid out into four borders/checks, three 300 feet wide, C-1 through C-3, and one 400 feet wide, C-4, by 0.25 mile long for better control of the domestic septage application rates. The other fields will be divided and labeled in a similar manner prior to land application.

The septage must be screened to remove solids over ¾-inch in size before the septage can be land applied. The septage must be incorporated into the soil within 6 hours of being land applied. A crop must be planted to uptake the nitrogen that is contained in the septage within one year of domestic septage application. The application rate of domestic septage will be based on the nitrogen needs of the crop planted; a nitrogen balance is required, if other sources of nitrogen, manure, commercial fertilizer, effluent that has not been denitrified, etc., are used on fields that have received septage. Food crops cannot be grown for five years after septage application.

The permit authorizes the installation of two 10,000-gallon steel, above-ground storage tanks to store the domestic septage during inclement weather and for storage when the incorporation equipment is not operational. The tanks must not be open to the atmosphere other than screened venting. Containment berms are required around the storage tank(s).

**Receiving Water Characteristics:** Per the Natural Resources Conservation Service, the water tables in the lower end of the Lahontan Valley vary widely depending on the time of year. The water table could be as deep as 8 to 10 feet in the winter and as high as 3 to 6 feet in the summer when the rest of the Valley is irrigating their fields. The facility is at the northwest corner of the Carson Lake Pasture, which is basically the terminal end of the South Fork of the Carson River, thus these fields are very close to the lowest point in the Valley.

The groundwater quality was not analyzed and the Division has no data regarding the shallow groundwater quality in this area.

The Division of Water Resources well log database lists five wells in Township 17N, Range 29E, Section 18. The static water level in these wells range from 0 to 338 feet below ground surface. Although several of the well logs identify the shallow water as salty, no water quality data is available for these wells.

Churchill County required baseline water quality tests of two domestic wells, 500 Norcutt, A, and 490 Norcutt, D, and the adjacent Cabin Drain, B, with subsequent annual analyses, thereafter, as a condition of the Applicant's special use permit. The Applicant also analyzed the irrigation water supplied by the Truckee-Carson Irrigation District, C. Some of the data from the August 1, 2007 sampling of these water sources is provided below:

Parameter	A	B	C	D
Total Dissolved Solids, mg/L	1020	59	11	52
Nitrate & Nitrite, mg/L	<0.5	<0.5	<0.5	<0.5
Chlorides, mg/L	180	120	11	17
Sodium, mg/L	330	150	26	41
Manganese, mg/L	0.42	0.14	<0.02	0.14
Arsenic, µg/L	140	59	11	52

Information regarding the static water elevation and screened interval for the two wells was not provided.

**Characteristics:** Only domestic septage, portable toilet fluid, and grease interceptor material may be land applied under this permit. No analysis of these materials is required. Portable toilet fluid must be land applied at one-sixth of the septage application rate. Grease interceptor material shall be mixed with domestic septage at a rate of one part grease interceptor material to a minimum of three parts domestic septage, by volume, prior to land application.

No industrial waste may be land applied.

**Flow:** The application rate, in gallons of septage per acre per year, shall be based on the amount of nitrogen required by the planned crop and crop yield. The Applicant is planning to grow sudan grass at a design yield of 10 tons/acre and a nitrogen uptake rate of 325 pounds of nitrogen/acre/year at the site. If these cropping practices are continued, domestic septage may be applied at a maximum rate of 125,000 gallons per acre per year.

$$\text{gallons/acre} = \text{pounds of nitrogen required for crop yield} \div 0.0026$$

The 325 pounds of nitrogen per acre may be adjusted based on the recommendation of the Cooperative Extension Service or other cropping expert with local experience regarding crop nitrogen demand and yields.

The Applicant has applied 149,300 gallons, 142,600 gallons, and 133,800 gallons in July, August, and September 2007, respectively, under TNEV2007519. If a sufficient volume of septage is not available to provide the sudan grass nitrogen requirement, wheat hay at a design yield of 4 tons/acre and a nitrogen uptake rate of 250 pounds/acre will be planted. This cropping will require approximately 96,000 gallons/acre.

The Permittee has not requested a 30-day average flow or a daily maximum flow. Permits for the land application of domestic septage do not include flow limitations, provided that adequate land is available for domestic septage application. The permit does not regulate cropping practices, only the utilization of nitrogen applied.

#### **Proposed Septage Use Requirements:**

-Septage use must meet all of the requirements of 40 CFR Section 503, Standards for the Use or Disposal of Sewage Sludge.

-Domestic septage and grease interceptor material shall not be applied to land within 100 feet of any public roadway or within 600 feet of any residence.

-Domestic septage and grease interceptor material shall not be applied within 200 feet of a drinking water well not defined as a public water system well.

- Domestic septage and grease interceptor material shall not be applied within 1,000 feet of a public water system well.
- Domestic septage and grease interceptor material shall not be applied within 50 feet of an irrigation well that has been sealed per Nevada Administrative Code (NAC) 534.380.
- Domestic septage and grease interceptor material shall not be applied within 200 feet of an irrigation well that is not sealed or cannot be documented as sealed per NAC 534.380.
- Domestic septage and grease interceptor material shall not be applied within 50 feet of any irrigation or drainage ditch, swale, intermittent stream, creek, river, wetland, lake, or other surface water.
- All land application sites shall be fenced and posted with warning signs stating "DOMESTIC SEPTAGE APPLIED, NO TRESSPASSING". The maximum spacing between warning signs shall be 300 feet.
- Equipment to incorporate the domestic septage and grease interceptor material into the soil shall be on the site and in operating condition at the time of land application.
- Food crops shall not be grown on land that has had domestic septage applied within the past five (5) years. (Food crops are crops consumed by humans. These include, but are not limited to, fruit, vegetables, and tobacco.)
- The domestic septage and grease interceptor material shall be land applied at a uniform rate by means of a spray bar, splash plate, or similar method approved by the Division.
- The domestic septage and grease interceptor material shall be screened through a  $\frac{3}{4}$  -inch or finer screen to remove solids from the septage prior to land application. Solid material removed from the domestic septage shall be disposed of in an approved landfill.
- Grease interceptor material shall be mixed with domestic septage at a rate of one part grease interceptor material to at least three parts domestic septage, by volume, prior to land application.
- Domestic septage and grease interceptor material shall not be applied to land if the depth to groundwater is less than 3 feet.
- All tanks used for storage at the beneficial use site shall be permanently labeled to identify the contents of the tank, the Permittee, the Permittee's phone number, and the Permittee's address.
- All tanks storing domestic septage and/or grease interceptor material shall be inspected daily for leakage. Documentation of the inspections shall be maintained in a bound logbook at the facility. Leaking tanks shall be immediately evacuated and not returned to service until all leaks have been repaired.
- Containment berms are required around all tanks storing domestic septage and/or grease interceptor material.
- The crop used to determine the annual application rate shall be planted within one year of the land application of domestic septage.
- Dry land farming is not authorized. The party responsible for the cropping must have irrigation water rights for the site prior to land application of domestic septage.

**Schedule of Compliance:** The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance. The Permittee shall implement and/or execute the following scheduled compliance requirements:

- a. Upon the effective date of this permit, the Permittee shall achieve compliance with the beneficial use limitations.

- b. At least thirty (30) days prior to land applying domestic septage to any land other than land covered by permit TNEV2007519, the Permittee shall submit a revised Operations and Maintenance (O&M) Manual covering the land application activities to be conducted on this additional acreage to the Division for review and approval. The Permittee has the option of submitting a revised TNEV2007517 O&M Manual to cover all activities authorized by NEV2008501 or a new NEV2008501 O&M Manual.
- c. Within thirty (30) days of the permit effective date, the Permittee shall submit to the Division the proposed location of three water elevation monitoring wells, MW-1, MW-2, and MW-3.
- d. Within sixty (60) days of Division approval of the locations of the three water elevation monitoring wells, the Permittee shall install the three groundwater elevation monitoring wells at the approved locations.

**Rationale for Permit Requirements:** Permit requirements are necessary to protect the public health and prevent the land application site from becoming a public nuisance and a source of water pollution.

Due to the seasonal potential for shallow groundwater in this portion of Lahontan Valley, the Applicant is required to monitor the depth to groundwater in three groundwater elevation monitoring wells on a quarterly basis. If the depth to groundwater is 4.0 feet or less in any well, the Applicant is required to increase the measurement frequency from quarterly to monthly for all wells until the depth to groundwater exceeds 4.0 feet for three consecutive months in all wells.

If the depth to groundwater is 3.0 feet or less in any well, the Applicant is required to immediately cease land application and not resume land application until the depth to groundwater exceeds 3.0 feet in all wells. The Applicant may exempt himself from a complete shutdown of the facility, if the Operations and Maintenance Manual contains an explanation of how the groundwater elevation can be verified in the individual fields. This may require the construction of additional wells.

Groundwater quality monitoring is typically not required for agricultural domestic septage beneficial use sites.

**Proposed Determination:** The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

**Procedures for Public Comment:** The Notice of the Division's intent to issue a permit, NEV2008501, authorizing the Permittee to land apply domestic septage, portable toilet fluid, and grease interceptor material subject to the conditions contained within the permit, is being sent to the **Lahontan Valley News/Fallon Eagle Standard** and the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of publication of the public notice in the newspaper. The date and time by which all written comment must be postmarked or transmitted to the Division via facsimile or e-mail is 5:00 P.M. January 26, 2008. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Division may be appealed to the State Environmental Commission pursuant to NRS 445A.605.